IN THE SPECIFICATION

Please replace the paragraph starting at page 93, line 1, and ending at page 94, line 4 with the following paragraph:

Figure 37I is a flowchart representation of software block 1173 of Figure 37G. This routine corresponds to a situation wherein a blower balance startup history does exist, but no recorded and historical value exists which directly corresponds to the current setting established for the blown film extrusion line. The process begins at software block 1221, and continues at software block 1223, wherein controller 1077 fetches the operating speed for the supply blower 1037 from a linear model. Function 1220 is a graphical representation of such a linear model which maps values of the master speed potentiometer setting to supply speeds (or the reference voltages which correspond to the supply speeds). The model is a simple function (y = mx). The model value which corresponds to the current speed potentiometer setting is then applied to supply blower 1037. Next, in accordance with software block 1225, controller 1077 examines the position of valve 1034 to determine its current state. Then, control passes to software block 1227, wherein controller 1077 is utilized to determined whether valve 1034 is within its optimum and substantially linear operating range of 28% to 32% (for the "bladder" type valve discussed above). If the valve 1034 is operating within its optimum and substantially linear operating range, control passes to software block 1233, wherein the process ends. However, if it is determined in software block 1227 that valve 1034 is not within its preferred operating range, the closure state of the valve is

examined to determine whether it falls above or below the preferred operating range. If the closure is greater than 32%, control passes to software block 1229 wherein the operating condition of supply blower 1037 is ~~decreased~~ <u>increased</u> by a non-linear offset component which is depicted by function 1222 (in the preferred embodiment, a predetermined constant is added to the previous function in order to generate a function of y = mx + b). If it is determined in software block 1229 that the valve is operating below the 28% closure condition, control passes to software block 1231, wherein the operation of supply blower 1037 is ~~increased~~ <u>decreased</u> by a non-linear offset component (in this situation, and in the preferred embodiment of the present invention, a constant term is added to the previous function in order to utilize a function of y = mx - b). This process is repeated until the valve 1034 is placed in its optimum range of operation.

Please replace the three paragraphs beginning on page 102, line 7, and ending on page 103, line 17, with the following three paragraphs:

Figure 40 is a simplified pictorial representation of the present invention. As is shown, lay flat sensors ~~801~~802, ~~803~~804 are fixed in position relative to the extruded film tube ~~807~~808, with a distance ~~805~~806 therebetween which is known and which is unchanged during the operations of the present invention. As is shown in the view of Figure 40, the distance ~~805~~806 is denoted as $d_{LF1-LF2}$. Lay flat sensor ~~801~~802 is an acoustic sensor which senses the distance d_{LF1} between lay flat sensor ~~801~~802 and the extruded tube ~~807~~808. Lay flat sensor ~~803~~804 is an acoustic sensor which measures the distance d_{LF2} between lay flat sensor ~~803~~804 and the extruded film tube ~~807~~808.

Also, as is shown in this figure, a plurality of roller assemblies ~~813~~814, ~~815~~816 are provided which surround extruded film tube ~~807~~808. Figure 41 is a simplified pictorial representation of the rollers. They comprise a number of individual rollers which are coated in Teflon and which roll about a circular shaft. They serve to engage the extruded film tube ~~807~~808 when it is fully expanded and to maintain its shape. Also, as is shown, a sizing cage ~~823~~824 (which is shown in extremely simplified form) is also provided in circumferential position relative to extruded film tube ~~807~~808. Sizing cage ~~823~~824 may be moved inward and outward relative to extruded film tube ~~807~~808 by electrically-controllable actuator ~~819~~820. The actuator is a conventional element and may comprise a motor which may be

selectively energized to move the sizing cage ~~823~~824 inward and outward relative to extruded film tube ~~807~~808. The IBC sensor ~~817~~818 is secured in position relative to sizing cage ~~823~~824. The IBC distance 821 between the face of IBC sensor ~~817~~818 and the inner surface of roller ~~815~~816 is also known and fixed. Typically, this distance, in accordance with the preferred embodiment of the present invention, is seven inches.

The present invention utilizes IBC sensor ~~817~~818 to measure the distance between IBC sensor ~~817~~818 and extruded film tube ~~807~~808. It measures the sensor-to-bubble distance 826. These measurements can be combined with the known distance data for the location of the lay flat sensors ~~801~~802, ~~803~~804 and the location of the IBC sensor ~~817~~818 relative to cage ~~823~~824 in order to determine the location of the cage. This can be done without any prior knowledge of the actual location of the cage. In the preferred embodiment of the present invention, it will be useful to know the useful operating range of cage ~~823~~824. This can be determined by moving the cage to its maximum outer position and making a measurement, and then moving the cage to is minimum inner position and making a measurement. This establishes a useful range of control which also does not require any prior knowledge and which can be determined utilizing the present invention. An operator will have to determine, however, where these maximum/minimum allowable positions actually are.

Please replace the first complete paragraph on page 118 with the following paragraph:

Figure 44J is a flowchart representation of a module for starting the forecast mode of operation. The process commences at block 1157 and continues at block 1159 in which the controller determines whether the cage control system is available. If not, control passes to block 1161 which is a return. If so, control passes to block 1163 in which the stability counter T is set to zero and the forecasting flag is turned "on" indicating an initiation of the forecast mode of operation. Then, control passes to block ~~1165~~ <u>1167</u> in which the initial position is set to a set point which ensures a "bumpless" PID input. Control passes to block 1165 which is a return. The routine of Figure 44J is a dependent routine from Figure 44M which will be discussed below. It represents a "smooth start" operation.